

CHAPTER 9.

Transportation Planning in Washington

CONTENTS

9. *Transportation Planning in Washington*

A.	Introduction.....	9-1
B.	Fundamentals of Transportation Planning.....	9-2
1.	Getting Started—Defining Your Community's Vision for the Future.....	9-2
2.	Key Steps in Developing the Transportation Plan	9-3
3.	Land Uses and Transportation Linkages.....	9-8
4.	Environmental Considerations	9-11
5.	Making the Transportation System More Effective	9-16
C.	Statewide Transportation Planning.....	9-25
1.	Local Comprehensive Plans.....	9-27
2.	Regional Transportation Plans	9-27
3.	Statewide Multimodal Transportation Plan.....	9-29
D.	Transportation Improvement Program and State Transportation Improvement Program.....	9-29
1.	Transportation Improvement Programs	9-29
2.	Project Selection Authority	9-30
3.	Prioritizing Projects.....	9-31
4.	Regional Transportation Planning Organizations	9-31
E.	Implementation of Programs and Projects.....	9-33
1.	Transportation Improvement Programs	9-33
2.	State Transportation Improvement Programs	9-35

3.	Implementing Projects.....	9-36
4.	An Overview of Developing Projects Using the Local Agency Guidelines	9-37
	Endnotes for Chapter 9	9-38

A. Introduction

Community based planning and decision making is a long standing tradition in Washington. The people that make-up the diverse rural areas, cities and towns, and tribal areas throughout the state have made their own decision on community development and land-use. There are several common threads that bind communities together throughout the state, transportation is one of those. Transportation facilities are owned and operated by numerous jurisdictions. Like most public services and facilities, planning has traditionally been done at the local level. Transportation, however, connects people from their own community to other places, close and far away, making it essential that the transportation system function as one interconnected and coordinated system.

Transportation planning is done to solve important problems - problems we do not solve will mean that our economy and quality of life will suffer. Transportation planning should be done proactively to take advantage of opportunities that will shape our future and create the transportation system and preserve the quality of life we all desire. Transportation planning helps us to invest our transportation resources wisely. Transportation facility and service investments are expensive, take a long time to deliver, and provide service for many years. Because we have limited revenue available, transportation planning helps decision makers target investments that best serve the transportation customers needs and meet our social, economic and environmental goals. While transportation plans usually have a future component, the purpose is not to limit future decisions, but to lay out the future implications of today's decisions. Since decision making is an ongoing process, transportation planning also needs to be ongoing, reflecting the changing values and conditions of our state and world.

B. Fundamentals of Transportation Planning

1. Getting Started—Defining Your Community's Vision for the Future

To plan a comprehensive transportation system communities must first define their values. Values related to livability, safety, mobility, and stewardship of the land could have a major influence on the transportation system that is best suited to a particular jurisdiction. For example, if a community wants to create a vibrant, pedestrian-oriented downtown, improvements to mobility for pedestrians, bicyclists, and transit riders should take precedence over moving cars rapidly through the downtown area.

Issues related to transportation and community character are complex, with many differing viewpoints. By visualizing the future of your community and drawing broad goals from this view, you will be able to make informed decisions about the individual choices your community faces.

How do you begin to plan for the transportation improvements that will help to achieve your vision for the future? First, take a fresh look at your comprehensive plan. We have become accustomed to viewing the comprehensive plan as simply a land use map that designates where to put the elements of our community, e.g., homes, businesses, schools, parks, etc. But, from a different perspective, consider how the plan relates to mobility. If you begin with the big picture, the issues related to mobility become clearer. Sample questions include:

- How will your community move freight and people about from place to place?
- What destinations will people be attracted to?
- How will people get to and from these areas?
- Are there alternative ways of moving people?
- Which destinations require good truck access?
- Are there alternative ways of moving freight?
- How will your plan fit with regional plans?

There are several common elements of most transportation plans. In this chapter, these elements will be explored and explained. The transportation planning process described in this chapter is similar to processes that many local and regional governments are using as they prepare their transportation plans under the state's Growth Management Act and TEA21.

The level and types of transportation needs of a community are directly tied to its land use patterns and level of development. To develop a long-range transportation plan, current and future land use patterns and densities need to be described and projected. Next, level of service standards which define the quality of your transportation system should be agreed to by the community. Together, the land-use assumptions and Level of Service (LOS) standards provide the needed information to identify current and future transportation system needs. Improvements, concepts, and financing strategies to meet these needs can then be analyzed. Ordinances can be adopted which will maintain the adopted standards.

In transportation planning, concurrency and intergovernmental coordination concepts that are requirements under the Growth Management Act are also important. In this chapter, these two concepts are defined and strategies to achieve concurrency and the importance of coordination of community transportation planning are discussed.

2. Key Steps in Developing the Transportation Plan

The development of a transportation plan has eight key steps:

1. Agreeing on land use assumptions.
2. Adopting level of service standards.
3. Inventorying existing services and facilities.
4. Determining current and future deficiencies.
5. Analyzing financing to meet deficiencies.
6. Planning for concurrency.
7. Developing an action strategy.
8. Coordinating with neighboring governments.

Land Use Assumptions

Existing and proposed land uses are an integral component of transportation planning. Determination of existing and future transportation needs requires an inventory of existing land

uses to determine current demand for travel and whether such demand can be met by existing transportation facilities. Land use activities proposed to take place during the planning time frame should be analyzed and mapped to determine future transportation demands on existing facilities. Future land use also determines the need of siting of new facilities.

Land use assumptions for developing a transportation plan would include:

- Analysis of the location of present land uses, i.e., various residential densities, retail, highway strip commercial, office, warehouse, etc.;
- Analysis of population, employment, and trips per day generated in each land use area;
- 10- to 20-year projections of anticipated population growth for each of these areas;
- Desired location of future land uses; and,
- Location of future transportation facilities not only to relieve current transportation pressures, but also to guide the location of future growth and the type of development occurring around the facility.

Level of Service Standards

Level of service standards establish a gauge for evaluating the performance of the existing transportation system and planning for the system to meet future needs. Essentially, level of service is defined as a qualitative measure describing operational conditions within the traffic stream or on the transit system, and the perception by motorists and/or passengers. Level of service standards and measures generally describe these conditions in terms of such factors as speed and travel times, freedom to maneuver, traffic interruptions, comfort and convenience, and safety.

One way of establishing LOS is described in roadway level of service. The Transportation Research Board's *Highway Capacity Manual* follows a grading scheme similar to a school report card. These measures are A through F, with A describing a safe uncongested roadway, and F describing gridlock. The following table gives a more in-depth description of these levels of service:

Other methods of measuring LOS area available to transportation planners and traffic engineers. These standards by transportation planners and traffic engineers can serve as the basis for establishing road and highway levels of service, but should not be used in the absence of land use considerations.¹ For instance, in order to concentrate development into a community center or downtown area, it may be desirable for the local community to establish a method for measuring level of service that considers all roads within the area together rather than separately. This could involve the use of different measuring technologies appropriate for the size of the community.

Once existing levels of service are determined, a plan for eliminating current deficiencies can be established. Level of service standards are also used as a measure to ensure transportation facilities meet future demands. Future facilities can be designed to ensure that demand on facilities does not exceed agreed to level of service standards. To achieve the vision of a long-range plan, provision of future transportation improvements can be based upon maintaining accepted levels of service standards.

Inventorying Existing Services and Facilities

Preparing an inventory of existing transportation services and facilities is the first step in determining the existing level of service standard for each part of the transportation system.

An inventory of air, water, and land transportation facilities and services, including transit routes, is required to define existing capital facilities, transportation services, and travel levels as a basis for future planning. An assessment of existing conditions should include analysis of the current capacity and demand on each system. An inventory might include current average daily trips for roadways, and routes, schedule and ridership information for transit services. Typically, an inventory includes a map showing where existing roads are located, the number of lanes, plus a discussion of deficiencies or problems.

Determining Current and Future Deficiencies

After the inventory of existing services and facilities is completed, the degree to which the existing level of service of each facility meets the locally established level of service standard can be determined. This is through comparison of the actual use of the system with the community's level of service goals. The determination of the level of service for

each facility or service indicates whether each system can accommodate current demand. Where existing facilities cannot meet current demand, a plan for eliminating those deficiencies can then be developed.

Using population projections and the proposed future land use map, forecasts of traffic for at least 10 years should be undertaken to determine location, timing, and capacity needs of future growth. The plan for improvements to existing systems should consist of a variety of system improvements (adding road lanes, pedestrian facilities, or public transportation services) and transportation system management (traffic control devices) needs to meet current and future demand in accordance with established level of service standards.

Analyzing Financing to Meet Deficiencies

After current and future needs to meet system deficiencies are determined, analysis of the funding capabilities should be undertaken to compare needed improvements against probable funding resources. Analysis of financing capabilities must include a multi-year financing plan based on the needs identified earlier in the planning process. If probable funding falls short of meeting identified needs, the plan should include a discussion of the means for raising additional funding or a reassessment of land uses (which may result in fewer future transportation needs as transportation and land-use assumptions are interrelated).

Reassessing for Concurrency

At this point in the planning process, the community has reached an important milestone which requires action. Cities or counties planning under the GMA are required to adopt and enforce ordinances which prohibit development approval if the development causes the level of service on a transportation facility to decline below the standard adopted in the plan, unless transportation improvements or strategies to accommodate impacts of development are made concurrent with development. This is a prudent course of action for all communities to ensure facilities keep pace with growth.

Concurrency means that improvements and strategies must be in place at the time of development, or that a financial commitment is in place to complete the improvements or strategies within an agreed amount of time. Strategies to ensure concurrency may include: increased public transportation services, ridesharing programs, demand

management, and other transportation systems management strategies. Where financial commitments cannot meet identified needs for transportation improvements, reassessment of land uses and revisions to the transportation plan should be made. The future land use plan must be revised to ensure that location, intensity and density of proposed future land uses will not cause demand on transportation facilities and services to exceed established level of service standards.

Other options to revise the transportation plan include:

- Reassessing standards or reconsidering what is an appropriate level of service for the given system;
- Reassessing financing or other budgetary priorities; or,
- Reassessing transportation service, i.e., is the proposed facility appropriate for the economy in the region.

Developing an Action Strategy

The transportation plan should include an action strategy for bringing into compliance any existing facilities or services that are below established level of service standards, and provide for expansion of facilities and services to meet future needs at established level of service standards. The strategy should be financially sound and planned needs should be financially feasible. The future land use plan should be consistent with this action plan and future growth should not cause facilities to fall below the established level of service standards.

Providing Intergovernmental Coordination

Coordination with adjacent communities often is necessary throughout the planning process. The plan of each community should be coordinated and consistent with the plans of other communities that share common borders or related regional issues.

Where possible, communities should mutually define level of service standards for shared transportation facilities and services. The transportation plan should also include an assessment of the impacts of the transportation plan and land use assumptions on the transportation systems of adjacent

communities. Land use assumptions of one community may impact the transportation needs of another. It is therefore essential that communities coordinate their planning, particularly during the analysis of current and future deficiencies, reassessment and concurrency, and development of the action strategy. Further, coordination is often necessary during development of the future land use assumptions. Future land use patterns need to be coordinated on a regional basis to increase the efficiency of the regionwide transportation system.

3. Land Uses and Transportation Linkages

Land use decisions should not be made without consideration of transportation needs and impacts. Both the location of land use and the type of land use itself affect transportation demand. Different types of land use generate different traffic volumes; for example, commercial activities generate more travel trips than residential activities. Further, locating shopping and work opportunities in close proximity to residential development increases the likelihood of bicycling and pedestrian travel. A longer travel distance between home and work generally increases reliance on the automobile rather than the use of other alternatives, thus increasing demand on roadway networks.

Transportation decisions also require consideration of impacts on land use. Transportation access allows the development of land that was previously inaccessible; such lands become subject to increased market demand for highway oriented and other types of urban development. A primary consideration in deciding on the location of a new home or business is access to the transportation system. When access to outer lying areas is improved, development pressure in the surrounding area is increased. There is a direct relationship between improved highway access and the development pressures.

The transportation planning process involves guiding, directing, and regulating growth to meet local planning objectives. Therefore, development of future land use plans requires consideration for enhancing the efficiency of the transportation system. Strategies to increase efficiency include:

1. Increased employment density.
2. Provision of employment and housing balance.
3. Development caps.
4. Regionally consistent site designs.

Employment Density

Mixed use centers can make transit and other rideshare alternatives both economically viable and attractive to the user, thus reducing automobile traffic. It is extremely difficult to accommodate commuter trips if they are generated by low density, scattered office developments. The single-occupant vehicle is the only mode of transportation which can effectively be utilized in such areas. Therefore, low density office development in outlying areas will aggravate a community's transportation problem.

Promotion and protection of land uses which reduce the commute distance between the home and place of employment, and between home and public transportation services and facilities should be emphasized. It is important to recognize the linkage between land use and transportation, and to establish land use policies that will be effective in helping to solve urban/suburban transportation problems.

Employment and Housing Balance

The employment and housing balance refers to the availability of an adequate supply of housing close to employment centers, and also the potential for reducing automobile traffic. From a transportation planning perspective, lack of housing opportunities in a community and surrounding areas creates a major problem. For example, as a community's employment opportunity base increases, a shortage of housing opportunities in the area will force those people working in the community center to choose a house outside of the area. This situation will increase the commuter's travel distance, and therefore increase potential transportation, energy, and air quality problems.

Regionally Consistent Design

Regionally consistent design refers to the development and implementation of community standards which promote transit and pedestrian accessibility rather than automobile accessibility. In order to be effective, these policies need to be consistent within specified transit corridors in which transit service is identified as the priority.

The following site design policies would promote transit use in suburban employment centers. Paved, covered walkways and adequate lighting should be provided between building

and nearest transit stops, and paved covered passenger standing areas with good visibility should be provided at all transit stop locations. Development should be sited to invite pedestrian access among and between buildings and transit service. This can be done through narrowing of setbacks and orientation of buildings toward bus stops and approaches rather than parking lots. Office developments should provide a central focus for surrounding development that promotes people-oriented activities such as restaurants and shops. Routing of transit should be through the center of the development to provide short walking distances to transit stops to as many people as possible. The number of parking spaces should be reduced and located peripherally to the center. Transit pullouts or parking of ride-shared vehicles should be given preferential location.

These site design policies would also be appropriate for residential development, with the following additions: provisions of sidewalks and a safe, attractive pedestrian environment; minimizing the area devoted to streets; and locating higher density housing along streets serviced by transit or near transit stations.

Applications to Link Land Use and Transportation

Current approaches interface transportation and land use in the following three ways: (1) zoning policies, (2) transportation policies related to development decisions, and (3) Transportation Demand Management.

1. Zoning Policies

Examples: high-density residential zones located on arterials, the routing of through traffic around residential areas, and buffers between residential zones and arterial.

2. Transportation Policies Related to Development Decisions

One of the primary considerations in deciding on the location of a new home or business is access to the transportation system. Decisions to widen a road, add a stoplight to improve traffic flow, or build new roads in outlying areas, improve the access and increase the development pressure in the surrounding area. The relationship between improved highway access and development pressure is direct and

profound. Therefore, one consideration in recommending transportation access improvements is the desirability of increasing development pressure.

3. Implementation Conditions Imposed on Development

Transportation Demand Management (TDM) and Transportation System Management (TSM) are used more frequently in communities with large population densities. A variety of implementation conditions can be imposed on development. Examples of administrative TDM measures are: bus pass subsidies, ride match, and flex time. Examples of constructed TSM measures are bus pullouts and shelters.

4. Environmental Considerations

The role of communities in meeting environmental consideration in transportation planning is important.

Threats that are jeopardizing the sustainability of our environment and our quality of life have been identified by many. Comprehensive action agenda has been aimed at protecting our environment and natural resources. The following list should be considered in the transportation planning process:

1. Protect natural resource lands and critical areas.
2. Improve air quality.
3. Improve water quality.
4. Reduce noise conflicts.
5. Manage open space and scenic views.

Protecting Natural Resource Lands and Critical Areas

Natural resource lands are agricultural, forest and mineral resource lands which have long-term commercial significance. Protection of natural resource lands can be accomplished by developing access primarily for movement of products and goods, discouraging increased public access of natural resource lands, and avoiding decision or separation of resource lands that presently operate as an ecological community or unit.

As a key part in transportation planning, communities classify and designate critical areas. After classifying and designating these areas, communities should adopt and enforce regulations to protect these areas and preclude incompatible land uses. Critical areas include:

- Wetlands.
- Aquifer recharge areas.
- Fish and wildlife habitat conservation areas.
- Frequently flooded areas.
- Geologically hazardous areas.

Wetlands - Wetlands provide valuable functions necessary for maintaining a good quality of life, such as flood storage, wildlife habitat, water quality improvement, fish breeding and spawning areas for commercial and recreational fisheries, and recreational opportunities. Transportation design and construction practices must consider protection of wetlands.² New transportation corridors and ferry facilities should avoid disturbing and dividing wetlands. Where incidental damage is unavoidable, mitigation efforts should restore the wetlands or provide replacement wetlands. Constructed natural drainage corridors should not be altered by development or highway construction. Highway water runoff should be treated to remove sediments and other pollutants prior to discharge onto water bodies or wetlands.

Aquifer Recharge Area - Aquifers are major sources of drinking water for many communities. Aquifer recharge areas should be protected to replenish water supplies and maintain surface water levels. Protection should include: avoiding transportation construction in critical aquifer recharge areas, wherever possible; avoiding penetration of aquifers with support structures; providing spill containment measures, where necessary; and routing storm water to aquifer recharge areas only when it has been adequately filtered or treated.

Fish and Wildlife Habitat Conservation Areas - Fish and wildlife are important natural resources. Fish and wildlife habitat conservation areas are extremely sensitive to human encroachment. The listing of a variety of species under the Endangered Species Act is federal recognition of the impact of human activities on our natural resources. Therefore, planning of transportation facilities should consider: preserving wildlife movement corridors; avoiding breeding, nesting, and feeding sites; preserving stream flows and water quality for fish runs; and preserving riparian habitat areas supporting rare and endangered wildlife and plant species.

Frequently Flooded Areas - Floodplains generally provide storage capacity during major storm events. Flood storage capacity should be maintained to prevent flooding of adjacent developed areas. Transportation facilities should be located outside floodplains, or if that is unavoidable, above floodplains, and designed for closure during major floods; consider high water in design; discourage new development in frequently flooded areas by limiting access; and ensure adequate design and maintenance of pipes and storm water management devices.

Geologically Hazardous Areas - Geologically hazardous areas include steep slopes, landslide areas, seismic areas, and areas of high erosion potential. In addition to public safety, the location and design of transportation facilities in these areas should consider impacts on water quality and the deposition of sediments into water bodies and wetlands. Public access and inappropriate land uses should be discouraged.

Improve Air Quality

Research has found that vehicle traffic is a major source of air contaminants, which affect public health and urban vegetation. Transportation sources contribute to total air pollution as shown in the following table.³

Air Contaminant	State	National
CO	49%	66%
TSP	43%	21%
PM10	ÑÑ	25%
SO2	6%	5%
NOx	50%	40%
VOC	36%	35%
Pb	ÑÑ	31%

Two major considerations for improving air quality and vehicle related pollution include: reducing driving and reduce driving related pollution.

To reduce driving, transportation planning should consider establishment of employer-based incentive/disincentive programs that discourage, rather than encourage, employees commuting to work alone. Other considerations include:

- Expansion of efforts to develop transit opportunities and other alternatives to single occupancy vehicles;

- Planning mixed use zones that increase housing near employment centers and reduce the need for transportation; and
- Increasing public education/awareness of the effect of personal driving habits on the environment.

To reduce driving-related pollution, the following considerations are recommended:

- Control gasoline vapors at the fueling source;
- Encourage transitions to cleaner fuels and more fuel-efficient vehicles;
- Expand the vehicle emission inspection and maintenance program; and
- Promote federal initiatives to explore and develop approaches for controlling emissions from diesel-powered vehicles.

Improve Water Quality

Storm water runoff contaminants constitute a significant percentage of the water pollution. Contributors include: runoff from urban streets and parking lots; increased erosion from construction activities; and air contaminants dissolved by rainwater. Transportation considerations for controlling these sources include establishing local storm water management programs, in accordance with programs being developed by the Department of Ecology. These may include filtration devices, buffers, and reduction of impermeable surfaces.

Improved water quality can also be accomplished by fitting new vehicles with oil drip and leak collection devices. This and other methods can reduce incidental contamination deposits on the roadways.

Reduce Noise Conflicts

A three-tier approach for reducing noise conflicts involves:

- Establishing design and location standards for transportation facilities to ensure compatibility with adjacent land uses;

- Controlling of land uses adjacent to transportation facilities to guide the future use of vacant or undeveloped lands and reduce the impact of noise on existing land use activities; and,
- Reducing noise source emissions through establishment and enforcement of noise ordinances. A noise reduction program includes both physical and administrative techniques.

Administrative techniques to reduce noise conflicts in sensitive areas may include zoning to exclude incompatible uses and building height limits, and requiring construction of buffer strips, noise barriers, and sound insulating construction. Other legal restrictions, such as subdivision laws and building and health codes, could require acoustical site planning or insulating berms and barriers; specify acoustic insulation and sealed windows; and establish certain indoor noise limits to be achieved through various physical techniques.

Public ownership or control of the land is another technique for reducing noise conflicts and could include municipal land acquisition or easements and conservation trusts. Other techniques include tax incentives for compatible use, and educational and advisory services.

Open Space and Scenic Views

Transportation has a major impact on the appearance, as well as the accessibility, to diverse natural and scenic elements which characterize a region. The challenge is to preserve these elements while supporting the needs of the growing population.

The views from Washington's transportation facilities is a catalyst for the state's fourth largest industry, tourism. Preserving scenic, recreational, and cultural resources should be an interactive process between the state, tribes, local agencies, and local land owners, to identify these resources and develop management practices to enhance the view from the road, as well as from the scenic area. Federal, state, and local governments should consider acquiring or regulating adjacent land use or to use other controls such as scenic easements and tax incentives to allow visually compatible land uses to continue. The goals of the transportation plan should reflect the community vision with respect to scenic view preservation.

5. Making the Transportation System More Effective

Historically, increases in traffic congestion have resulted in expansion of the transportation system. Problems include:

- Travel demand grows faster than the system can be expanded;
- Construction of new strategies to address congested roadways have become more difficult to sustain due to the increased cost of new construction and the increased cost of maintenance on existing roads; and
- Social and environmental impacts prevent construction.

Following are three approaches to making the transportation system more effective:

1. Use Transportation Demand Management (TDM).

The art of modifying travel behavior, usually to avoid the more costly expansion of transportation system.

2. Use Transportation System Management (TSM).

Encompasses an array of actions that can be taken to increase the carrying capacity of roadways.

3. Developed Land Use Strategies

Address the relationship between land uses to reduce the number of vehicle trips generated and/or reduce the length of trips.

Transportation Demand Management

Transportation Demand Management addresses traffic congestion by focusing on reducing travel demand rather than increasing transportation supply to increase transportation efficiency. Travel demand is reduced by measures which

either eliminate trip making or accommodate person trips in fewer vehicles. These techniques generally address the commuter. Implementation of TDM alternatives therefore requires employer/public agency cooperation.

Transportation Demand Management alternatives include:

- Ridesharing.
- Transit service improvements.
- Parking subsidy removal/pricing.
- Parking supply limits.
- Transit/rideshare incentives.
- Ride home guarantees.
- Telecommuting.
- Flextime.
- Compressed work week to reduce driving days.
- Walking/bicycling.
- Road pricing.

Ridesharing - Ridesharing includes carpooling and vanpooling. A carpool is any passenger vehicle with a minimum of two people who commute on a regular basis. A vanpool is a passenger van used by seven to fifteen commuters. Programs to encourage ridesharing include carpool matching; preferential parking for carpools and vanpools; distribution or posting of information on ridesharing and transit services and other activities designed to introduce commuters to prospective carpool partners; and fleetpool programs which allow employees to use the employer's automobile fleet during nonwork periods for employee-operated carpools.

Transit Service Improvements - Transit service levels are measured by the accessibility and distribution of transit. Strategies to improve service levels focus on reducing the time between transit vehicles, extending the hours of service, increasing the geographical area providing service, and increasing the accessibility of transit to all residents.

Parking Subsidy Removal/Pricing - This strategy has two related components: the removal of employer-based parking subsidies at employment sites where parking charges currently exist (typically Central City areas) and/or instituting employee-paid parking charges at employment sites where parking charges do not currently exist (typically suburban areas). Growing evidence suggests instituting paid parking and/or removal of employer subsidized parking has been most

effective in converting automobile commuters to transit or carpools. This approach is acceptable, however, only if other approaches without a monetary impact on the employee are not sufficient.

Parking Supply Limits - Parking supply can be limited through development controls or land use codes. Parking supply is typically limited through the use of maximum limits on the overall supply in an area. The technique is most applicable to big city centers. Some cities allow a reduction in parking in exchange for a developer's commitment to conduct an on-site transportation demand management program. Another technique for parking reduction for new development is to require a portion of a site to be set aside and held in reserve in case future additional parking is needed. Limiting the parking supply will generally result in increased parking cost.

Transit/Rideshare Incentives - As an incentive to use transit or rideshare, the employer may subsidize partially or fully, the out-of-pocket cost of an employee work trip. Subsidy options can include transit passes, carpooling parking fees, vanpool fares and guaranteed rides home in an emergency or after normal transit hours.

Ride Home Guarantees - Ride home guarantees can also be provided by a public agency. A guaranteed ride home program provides subsidized rides home, usually by taxi, for those commuters who are not able to use their normal transit and rideshare commute mode due to a personal emergency or work obligation. For some commuters, a ride home guarantee is necessary to encourage the use of ridesharing or transit.

Telecommuting - Telecommuting refers to the use of telecommunications technology for certain employees to work from a remote site or their home. Telecommuting can be an effective TDM strategy by shortening or eliminating peak-period commute trips to primary office sites. However, telecommuting from a remote office site does not eliminate the entire commute trip and will add traffic to the road system near the remote site.

Flextime - Generally, any system that gives employees some control over their own starting and ending times is considered flextime. Flextime does not necessarily change the number of days in the work week. Flextime can reduce traffic congestion at peak hours and facilitate use of ridesharing or transit. The range of possible hours within which an employee may choose to work is extended beyond the usual

stating and quitting times. Employees are usually required to be at work during core time (e.g., 9:30 a.m. to 3:00 p.m.) and have a choice as to when to begin and end the day, provided they work the necessary eight hours.

Compressed Work Week - This technique "compresses" the typical five-day, 40-hour work week into a fewer number of days. The most typical schedule is four, ten-hour days resulting in a reduction of driving days and commute miles per week.

Walking/Bicycling - Measures which give equal consideration or priority to pedestrian or bicycle access over vehicular access are also TDM measures. Examples range from individual building design review to assure that doors are near transit routes, to regional plans for safe bicycle routes.

Road Pricing - This strategy includes a range of pricing alternatives which might be applied to congested bridges, freeways, or arterial streets. It could include tolls for single occupant vehicles or for highway users during peak periods.

There is no experience in the United States with pricing on a regional network of highways and arterials for purposes of reducing trips. There is some experience with price changes on tunnels and bridges and the potential effect of road pricing. The results suggest an increase of \$2 to \$3 on peak-period highway users may reduce peak travel by 15 to 25 percent. Issues would include concerns about impacts on placing tolls on federally funded facilities.

Implementation of TDM measures which are a constraint (such as road pricing) must be concurrent with viable options. If they are not, the desired result may not occur, i.e., extra cost will be absorbed or avoided by relocating the business. The traffic problem could then become worse.

Implementation of TDM Techniques

Gaining acceptance and use of TDM requires marketing to both the business community and the user. The active support of employers, businesses, and developers is needed. The program must trigger business enlightened self-interest and may involve negotiated public private agreements. The commuting public may perceive TDM alternatives as requiring significant adjustment in personal comfort, preference, and habits. People need to be told the benefits to them personally as well as the benefits to the community.

It is important to understand that each TDM measure is applicable to a different segment of the population. Unlike roads which are intended to serve the entire traveling public, TDM measures are tailored to specific segments of the travel market. There are different alternatives to the automobile for different people, and different TDM strategies for different employers. Establishing a successful TDM program requires as much marketing data and market understanding about the companies and commuters as possible. The personal automobile is a strong competitor.

Each person, department, and employment site is unique. What works well for some may not work well for others. Locally, measured effectiveness should be used to determine local actions. National experience identifies these examples of TDM application options:

Walking works well for those who live close to work where the climate is mild (or there is weather protection) and the area is well-lighted, is fairly secure, and has sidewalks.

Bicycling works best for those who live within five miles of work where the terrain is fairly flat and the climate is mild.

Public Transit works best for those who live within 20 miles of work and work in concentrated areas. Transit must stop near work site and home, and schedules and work shifts must be compatible. Alternatively, park and ride lots and express service to work site needs to be provided.

Carpools work well for those who commute ten miles or more and spend 40 minutes or more commuting, particularly in suburban work sites without transit where there are convenient employment groups.

Vanpools/Bushels work well for those who commute 15 miles or more and spend one hour or more commuting. Needs to be large group of employees who have same work schedule and live in same area.

Compressed Work Week Changing work schedules to ten hour days, four days per week or nine days every two weeks can help reduce trip and vehicle miles traveled (VMT), but involves changing production and coverage schedules.

Telecommuting eliminates or shortens trips. Works for some employees but not production employees.

Flextime does not eliminate car usage but helps employees match bus schedules, vanpools and carpools, or to miss peak congestion times.

Transportation Demand Management in Rural Communities

In rural communities, the need for implementing transportation demand management techniques is based upon different reasons than those initiating urban application. Rural communities are characterized by limited or no traffic congestion, widely spaced commercial and employment centers, and widely distributed residents. Road quality and maintenance may be a problem, but congestion is of little significance. What congestion exists may be experienced for a very short duration, denoting a peak five minutes as opposed to a peak hour period. Modes of travel other than personal automobile are generally not available or not economically viable.

Transportation demand management techniques should still be considered but for different reasons. Providing increased access to employment sites from the surrounding area through transit and ridesharing programs, or facilitating second-job employment of agricultural workers through flextime, are demand management approaches that could have rural application. Also, many rural areas have tourist travel peaks that could lend themselves to parking controls combined with tourist transit service, or to traffic operational improvements.

Transportation System Management

Transportation System Management formally refers to an array of actions that coordinate transportation services and facilities to increase the carrying capacity of existing transportation system and facilities; for example, the use of high occupancy vehicles (HOV). These actions include:

- Management of traffic operations and traffic control systems to maximize utilization of available roadways.⁴
- New transit or highway facilities that maximize the people carrying capacity of the transportation roadway, as compared to vehicular capacity.
- Implementation of TDM strategies.

Traffic Operations and Traffic Control Systems Traffic operational analysis and the installation of state of the art control systems can increase the capacity of existing roadways. Examples include:

- Synchronized traffic control on major arterials.
- Ramp metering on freeways.
- Traffic surveillance and incident control on both major arterials and freeways.
- Increased length for turn lanes.
- Express lanes.
- Truck climbing lanes.

Access Control Access control refers to the control of vehicular access to major roadways. A freeway represents complete access control as access is limited to interchanges and the freeway ramp design allows vehicles to enter the traffic stream without stopping. Where ramp metering is in place, stopping does occur. Partial access control on major arterials or state highways can also be provided by eliminating or prohibiting driveway access, by limiting or prohibiting left turn movements, and by limiting or prohibiting cross traffic at intersections. These actions increase the capacity of the major arterial to carry through traffic without requiring additional lane construction.

High Occupancy Vehicle (HOV) HOV priority refers to measures which create priority-based access and or exclusive access to freeways, arterials, ferries, and parking systems based on the number of occupants in the vehicle. HOV priority is an attempt to maximize the number of people (rather than vehicles) accommodated by the transportation system. For example, designating diamond lanes for exclusive use by carpools, vanpools, and transit vehicles is one means for providing HOV priority. Another example of HOV priority is a queue jump lane which allows carpools, etc. to move to the front of the line in getting on a crowded facility such as a ferry boat. Implementation of TSM measures is usually the responsibility of the state or local government. Large developments can be required to provide some TSM measures as a condition of development for those facilities that the development impacts.

Land Use Strategies

The number and arrangement of homes and businesses on land determines the number and length of trips and often determines whether the trip is made by automobile, transit,

carpool, or walking. Land use strategies to manage transportation demand include:

- Employment concentration.
- Employment/housing balance.
- Development cap.
- Site design.
- Mixed use.

Employment Concentration Concentrating jobs in mixed-use centers (similar to a traditional downtown) makes transit and ride sharing attractive.

Employment/Housing Balance Providing an adequate supply of affordable housing near employment centers shortens trips, thereby reducing miles of automobile traffic. Bicycling and walking are also more attractive.

Development Cap Shifting growth away from highly congested areas may prevent degradation of highway levels of service, but not always. Travelers may still pass through the cap area on their way to the alternate growth area.

Site Design Promoting transit, bicycle, and pedestrian accessibility in new development design can reduce auto trips. Examples of this are permitting on-site services (i.e., day care, pharmacy, dry cleaners, etc.), at park and ride lots and employment centers, and by encouraging interaction between the streets and buildings at the street level.

Mixed Use Mixing a variety of land uses in an area that is attractive for walking promotes use of walking for some trips. For example, providing restaurants near offices. Other approaches to mixed use may include: creating a neighborhood commercial district or allowing compatible convenience retail uses to locate within residential areas, allowing mixed compatible land uses, and increasing employment and housing densities in activity centers.

Land use strategies can be incorporated into the development review process as conditions of approval. This action should be one part of a broader transportation and land use strategy that includes growth management policies and revisions to general plans, subdivision regulation, and zoning to provide for community development patterns that help reduce overall auto use and vehicle miles traveled.

Trip Reduction Ordinance A trip reduction ordinance is a council regulation requiring developer or employer

participation in providing incentives for building occupants or employees to use TDM alternatives. The ordinance would require that a transportation management plan be prepared for each new development site or employment site. Program components might include shuttle service to transit stations, residential and commercial park-and-ride lots, guaranteed ride-home programs, pedestrian walkways, commuter rail easements, rent reductions for commuters who walk to work, subsidies for users of transit and vanpools, and mandatory parking providing strategies combined with significant parking supply limitations, etc. Generally, the ordinance would involve laying out requirements for projects in certain land use categories that meet minimum size thresholds. Flexibility can be provided within categories of actions required or by permitting developers to submit their own Transportation Management Program as an alternative to the program required by the ordinance.

Administrative Guides Guidelines are a means of providing staff with policy backing to impose TDM, TSM, or land use strategy requirements. This ensures some consistency for case-by-case negotiation.

Interim Ordinances can be adopted for a temporary period until the community governing body decides on the terms of a permanent ordinance.

Zoning Techniques The following are examples of presently available zoning techniques that can be used to implement TDM, TSM, or land use strategies:

1. Bonus or Incentive Zoning

Increased development rights (usually in the form of higher densities) given to a developer when amenities deemed to be in the public interest are provided in the development (i.e., day care, retail, social services, etc.).

2. Overlay Zone

A zoning ordinance overlays conventional zoning and covers specific parcels or a large area of land.

3. Planned Unit Development Zoning

Encourages coordinated development of large tracts of land.

4. Special District Zoning

Requires specific things to maintain a particular quality in the district (i.e., Pioneer Square, Pike Place Market).

Measuring Effectiveness

The overall goal of TDM, and the land use strategies discussed in this section is to increase the effectiveness of the total transportation system by reducing demand or maximizing existing capacity. Measuring effectiveness requires identifying factors that will measure changes in demand or capacity resulting from implementing the alternatives. This change in demand is projected in measurable terms. Then, baseline and periodic measurements are made to define change.

For example, for a carpool program in a target service area, the number of single person cars versus carpool commuters is determined by a survey at the beginning of the program. The amount of change is determined by periodic surveys. The measure of effectiveness is actual change versus projected change. Corrective action is taken if the stated goal is not met.

Both the local transportation plan and the regional transportation plan need to include identification of ways in which effectiveness will be measured. There is still a very small amount of actual data available by which to judge the actual effectiveness of TDM, TSM, or land use strategies.

C. Statewide Transportation Planning

Transportation planning helps to identify the important transportation issues facing us now, as well as those that we think will face us in the future. It identifies what services transportation customers (citizens and business) want, balances competing demands, and creates a common vision for the entire transportation system. The process identifies current and future investment needs to achieve the vision, and makes trade offs between needs to produce a plan that is financially feasible. It is a process that supports investment decisions.

Transportation planning in Washington state reflects the decentralized and diverse ownership of the transportation system. A key mission of these various transportation planning efforts is coordination between jurisdictions so that

the transportation facilities and services, although under separate ownership, operate as a total system. Transportation users do not particularly care whose system they are using, only that they can get to their destination safely and efficiently.

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) has changed the way states and local agencies do transportation planning in a revolutionary way. Rather than providing a specific list of regulations, the Act delineates a list of "guidelines" that must be followed, but without specifics as to what compliance "looks like" and how compliance with the guidelines is to be achieved. ISTEA provides new flexibility and decision making at the lowest level. This is a major shift from previous ways of doing business. States are now required to implement and impart this new concept of decentralized participation. The state and the Metropolitan Planning Organizations are putting in place a planning process that takes into account a wide range of data and analysis, involves the public early, and creates close linkages among the required management systems, the 20-year transportation plan, and the annual transportation improvement program.

RCW 47.06, enacted by the 1993 Legislature as ESHB 1007, requires the WSDOT to prepare a Statewide Multimodal Transportation Systems Plan for the Transportation Commission. The legislature recognized that the ownership and operation of Washington's transportation system is spread among federal, state, and local government agencies, regional transit agencies, port districts, and the private sector. Transportation planning authority is shared on the local, regional and state levels, and must be coordinated and comprehensive in nature.

The Growth Management Act⁵ (discussed in detail in Chapter 3) requires cities and counties with significant population growth to prepare Comprehensive Plans composed of six elements, including a Transportation Element. The Transportation Element must document how the 20-year transportation infrastructure needs are consistent with other plan elements. The jurisdiction must also show how it will meet concurrency requirements. By December 31, 2000, cities and counties planning under the Growth Management Act are required to include state-owned transportation facilities in the transportation element of their comprehensive plans.⁶

The Clean Air Act of 1990 and the Clear Air Washington Act of 1991 also influence the Washington State Department of Transportation's planning process. The Clean Air Act is a federal regulation that directs Washington to outline State Implementation Plans (SIPs). These plans will assist jurisdictions to attain air quality goals regarding carbon monoxide, ozone, and particle matter. In an effort to meet air quality goals, Washington state adopted the Clear Air Washington Act of 1991. The Act created programs to enhance Washington's air quality as mandated by the Clean Air Act.

Transportation plans being developed at the local, regional, and state levels include the following:

1. Local Comprehensive Plans

Local Comprehensive Plans, under the state's Growth Management Act, serve as basic building blocks for transportation planning by defining land uses and the transportation system needed to support those land uses. Local comprehensive plans must include six elements as stated earlier. The transportation element of the plan should integrate land use assumptions by identifying and developing the following:

- An inventory of land, water, and air transportation facilities⁷;
- Analysis of impacts on other jurisdictions, and a feedback loop to reassess land uses that cannot be served with available funding;
- Service level standards;
- Current and future transportation needs; and
- Realistic funding analysis.

Another key component are plans developed by special transportation districts, such as transit agencies and port districts. These plans define the needs and services to carry out these special purpose governments' missions.

2. Regional Transportation Plans

Regional transportation plans (also known as metropolitan transportation plans in eight urbanized areas for federal purposes), are developed by Regional Transportation Planning

Organizations (RTPOs). An RTPO is created through the voluntary association of local governments within a region. Member jurisdictions within an RTPO determine their own structure to ensure equitable representation among local governments and to allow flexibility across the state.

RTPO Membership and Designation Membership in each RTPO must include a minimum of one county, and a population of at least 100,000. Regions may be formed in areas with less than 100,000 population if a minimum of three geographically contiguous counties are linked. Member jurisdictions of an RTPO must include all counties in the region, and at least 60 percent of the cities and towns representing at least 75 percent of the population of the city and towns.

In areas where there are Metropolitan Planning Organizations (MPOs) as required by the federal government, the RTPO and MPO must be the same organization. The Department of Transportation verifies the designation of each RTPO to ensure that all state requirements are met.

Each RTPO must establish a Transportation Policy Board whose membership includes, but is not limited to: representatives from the member counties, cities and towns; major employers; the WSDOT; transit providers; and port districts within the region. Technical Advisory Committees are encouraged in RTPOs.

Lead Planning Agency—The RTPO is required to designate a lead planning agency which may be a regional council, county, city, town agency, or a WSDOT regional office. Of the fourteen RTPOs that have formed or are in the process of forming, eight of the lead planning agencies are regional councils, two are economic development councils/districts, three are Department of Transportation regional offices, and one is a county public works department. The key role of the lead planning agency is to provide staff support to the RTPO and to coordinate the development of the Regional Transportation Plan.

Developing the Regional Transportation Plan—The RTPO is a formal mechanism used by local governments and the State to coordinate the planning of regional transportation facilities and services. A key function of the RTPO is to develop a Regional Transportation Strategy which addresses alternative transportation modes, and transportation demand management in regional corridors, and recommended preferred transportation policies to implement growth strategies. The

Regional Transportation Strategy serves as a guide, along with county-wide planning policies, guidelines and principles, for the development of the Regional Transportation Plan, also a responsibility of the RTPO. RTPOs are also required to develop in cooperation with WSDOT, public transit operators, and local jurisdictions, regional transportation improvement programs based on the plan. Improvement programs are to propose regionally significant transportation projects and programs and transportation demand management measures.

3. Statewide Multimodal Transportation Plan

While the state role in transportation planning was previously limited to state-owned transportation facilities and services (highways, ferries, and state-owned airports), the state has broader interests in all types of transportation modes. This broader interest is reflected in both state and federal law. In 1993, the state legislature expanded the state's concern to include transportation facilities and services that the state does not own, but are critical to the economic and social well-being of the state. These state interests include aviation, public transportation, intercity passenger rail, freight rail, marine ports and navigation, and bicycle and pedestrian transportation. The Statewide Multimodal Transportation Plan⁸ defines objectives for these state-owned and state-interest facilities and services including intermodal connections, determines current and future deficiencies, and proposes programs, strategies and specific solutions that should be pursued to protect the state interest, consistently and in cooperation with regional and local transportation plans.⁹

D. Transportation Improvement Program and State Transportation Improvement Program

Programming and project selection under ISTEA have changed significantly from previous practice. This section highlights important issues related to programming and project selection.

1. Transportation Improvement Programs (TIPs)

ISTEA requires Transportation Improvement Programs (TIPs) to be prepared by the Washington State Department of Transportation (WSDOT) and the Metropolitan Planning

Organizations. The Statewide Transportation Improvement Program encompasses all projects in Washington funded with ISTEA funds.

TIPs prepared by transportation management areas or metropolitan planning organizations include all federally funded projects in the region (including projects on native lands). Projects for the TIPs are selected based on the long range plan, need, priority rating and availability of funds. TIPs are usually prepared annually and include a three-year list of projects at both the regional and the statewide levels. TIPs must be updated at least every two years.

In air quality nonattainment areas, projects funded with state or local funds must be included in the Transportation Improvement Program as well. This is to ensure that Washington's Transportation Improvement Programs reflect all important changes to the transportation system with potential air quality impacts.

The most important issues related to the preparation of a Transportation Improvement Program are listed in the following.

2. Project Selection Authority

Under ISTEA, Transportation Management Areas (Metropolitan Planning Organizations for metropolitan areas with populations over 200,000) for the first time have not only planning but also programming authority. In Washington, there are three Transportation Management Areas: Seattle/Tacoma, Spokane, and Vancouver. In smaller urban areas Metropolitan Planning Organizations select projects in cooperation with WSDOT. In rural areas county lead agencies or Regional Transportation Planning Organizations select projects in cooperation with WSDOT. This means that WSDOT and regional and local officials jointly decide on the projects that will become part of the Transportation Improvement Program and prioritize them together. Tribal governments are invited to participate in this process.

Washington state has gone one step further in its implementation of ISTEA. In addition to Transportation Management Areas, it gives Metropolitan and Regional Transportation Planning Organizations, or designated county area lead agencies, the responsibility for project selection for some funds under the Surface Transportation Program. The intent of this provision is to facilitate an integrated, regional approach to planning and programming of transportation

facilities. The project selection process at the regional level provides opportunities for projects from all transportation modes, and tribal governments to be considered on the basis of regional needs and priorities.

3. Prioritizing Projects

In Washington, all regional planning organizations and WSDOT are given maximum flexibility to create the prioritization criteria that best address regional needs. They are also charged with developing prioritization methods to carry out the process. The only exceptions are projects competing on a statewide basis (for example, in the Enhancements Program). Here, consistent statewide project selection criteria and priorities are established by advisory committees.

4. Regional Transportation Planning Organizations

RTPO	COUNTIES	LEAD AGENCY
Benton-Franklin Regional Council (BFRC)	Benton Franklin Walla Walla	*BFRC P.O. Box 217 Richland, Washington 99352 Public (509) 943-9185 Fax (509) 943-6756 Donald P. Morton, Executive Director Mark Kushner, Transportation Program Manager
North Central	Chelan Douglas Okanogan	WSDOT-North Central Region 1551 North Wenatchee Avenue P.O. Box 98 Wenatchee, Washington 98801-1156 Fax SCAN 565-1674 Dave Honsinger, Transportation Planner SCAN 565-1504 Public (509) 662-0504
Palouse Council	Asotin Columbia Garfield	Palouse Economic Development Northeast 1345 Terra View Drive Pullman, Washington 99163 Public (509) 334-3579 Fax (509) 332-6991 Jack Thompson, Executive Director

Peninsula	Clallam Jefferson Kitsap Mason	WSDOT-Olympic Region 5720 Capitol Boulevard, MS 7440 P.O. Box 47440 Olympia, Washington 98507-7440 Fax (360) 357-2601 Gary Demich, Administrator Toby Rickman, Transportation Planning Engineer Public (360) 357-2630
Puget Sound Regional Council (PSRC)	King Kitsap Pierce Snohomish	*PSRC 1011 Western Avenue, Suite 500 Seattle, Washington 98104-1035 Public (206) 464-7515 Fax (206) 587-4825 Mary McCumber, Executive Director King Cushman, Director Transportation Public (206) 464-6174
Quad County	Adams Lincoln Grant Kittitas	Adams County Public Works 210 West Alder Ritzville, Washington 99169 Public (509) 659-4236 Fax (509) 659-0301 Walt R. Olsen, P.E., County Engineer
Southwest Washington Regional Transportation Council (SWRTC)	Clark Klickitat Skamania	*SWRTC 1351 Officers Row Vancouver, Washington 98661 Public (360) 737-6067 Fax (360) 696-1847 Dean Lookingbill, Transportation Director
Southwest Washington (SWW)	Cowlitz Grays Harbor Lewis Pacific Wahkiakum	*Cowlitz Wahkiakum Council of Governments 207 4th Avenue North, Admin. Annex Kelso, Washington 98626 Public (360) 577-3041 Fax (360) 423-9986 Steve Harvey, Director
Spokane Regional Transportation Council (SRTC)	Spokane Whitman	*SRTC 6th Floor Municipal Building West 808 Spokane Falls Boulevard Spokane, Washington 99201-3333 Public (509) 625-6370 Fax (509) 625-6988 Glenn Miles, Transportation Manager

San Juan County	San Juan	San Juan County 350 Court Street Friday Harbor, Washington 98250 Public (360) 378-2114 Ron Loewen, Director
Thurston Regional Planning Council	Thurston	*TRPC 2404-B Heritage Court S.W. Olympia, Washington 98502 Public (360) 786-5480 Harold Robertson, Director
Tri-County RTPO	Ferry Stevens Pend Oreille	Tri-County RTPO TRICO Economic Development District 347 West Second, Suite A Colville, Washington 99114 Public (509) 684-4571 Brent Grening, Director
Yakima Valley Council of Governments	Yakima	*YVCOG 6 South 2nd Street, Suite 605 Yakima, Washington 98901 Public (509) 575-4372 Lon Wyrick, Director

*Indicates also an MPO.

E. Implementation of Programs and Projects

Under the federal Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) each state must assemble a Statewide Transportation Improvement Program (STIP). Metropolitan Planning Organizations in the country's most highly urbanized areas must assemble a similar program known as a Transportation Improvement Program (TIP).

1. Transportation Improvement Programs

ISTEA provides an opportunity for the MPOs to focus and direct transportation funding in a way that will enhance communities throughout the MPO area. The federal act provided a new strengthened regional planning role for local governments to coordinate transportation and growth management strategies through MPOs, and each MPO has lead responsibility for the TIP process in their area.

ISTEA builds on past statutes to require stronger decision-making partnerships among local governments, transit

agencies, MPOs, WSDOT, and other affected public and private interests. The legislation requires MPOs to develop a program that identifies, prioritizes, and makes decisions regarding funding of transportation projects that are consistent with the Metropolitan Transportation Plan.

Federal guidance requires that all transportation projects in the region requesting federal transportation funding under Title 23 CER or the Federal Transit Act include a regionally adopted TIP.

Before such projects can be including the final TIP, the region must ensure that all projects have met the following conditions:

- *The projects must be evaluated and found to be consistent with the Metropolitan Transportation Plan;*
- *The projects must be prioritized by year and listed in a financially feasible TIP that shows how reasonable expectations of specific financial resources will be available to implement the projects;*
- *The projects that could affect air quality must be evaluated and found to demonstrate conformity with national air quality standards. The program projects collectively must show overall improved air quality and support the regions ability to achieve national air quality standards by the dates established by Congress;*
- *The list of projects included in the TIP must be developed in cooperation with tribal governments, local governments, transit agencies, and the WSDOT; and*
- *The projects can be included in the final, adopted TIP only if reasonable notice is given to the public and an opportunity is provided for the public to comment on the list of proposed TIP projects. Specifically, ISTEA requires that the public involvement process be an early, continuous, and meaningful one.*

2. State Transportation Improvement Program

The State Transportation Improvement Program (STIP) is the result of the statewide and regional planning and selection processes. At a minimum, it includes all federally funded (Title 23) transportation projects for a three-year period.

ISTEA states: The process for developing such plans and programs shall provide for consideration of all modes of transportation and shall be continuing, cooperative, and comprehensive to the degree appropriate, based on the complexity of the transportation problems. The STIP development process in Washington has some regional variation based on complexity.

In developing the STIP local agencies, Regional Transportation Planning Organizations (RTPOs) and Metropolitan Planning Organizations (MPOs), transit agencies, the Governors Office, and the tribes should all be involved.

With a federal requirement for a STIP, a state process to assure its timely completion is very important. If it is delayed, the programming process for the local agencies and the state are delayed. The result could mean more than delay, a project could be terminated or prevented from proceeding.

The STIP is a summary list of the selected transportation projects throughout the state. It is reviewed by the Federal Highway Administration and the Federal Transit Administration to assure the following:

- *It identifies all proposed highway and transit projects in the state, funded under title 23 USC and the Federal Transit Act, including Federal Lands projects;*
- *It is consistent with the long-range, statewide transportation plan;*
- *It is consistent with the metropolitan transportation programs (TIPs) approved by the MPOs;*
- *In CO ozone or PM-10 nonattainment areas, it includes projects that conform with the State Implementation Plan (SIP) for air quality (also required by the federal government);*

- *It is consistent with expected available funding; and*
- *It identifies project selection priorities developed with appropriate consultation and/or coordination with local jurisdictions, metropolitan planning organizations, and federal land agencies.*

ISTEA requires an update of the STIP at least on a biennial basis. Washington has chosen to update the TIP annually. The vast majority of agencies involved in the process use a calendar year budgeting process. In addition, the premise of planning under ISTEA, coupled with the desirability for air quality conformity, is that projects be delivered on the time schedule planned.

While programs generally proceed in an orderly fashion, program delivery is subject to factors that simply cannot be planned to the desired level. Disputed right of way acquisitions, environmental issues, and emergency situations often delay or redirect projects. This redirection requires continuous updating of the plan and changes in delivery of that plan.

Finally, WSDOT programming is subject to legislative review and approval with biennial budgets. The combination of influences on the process leads us to the conclusion that an annual update will not only better serve the requirements of ISTEA and the public, but will provide for a smoother flow of necessary planning and programming adjustments.

3. Implementing Projects

In May 1994, an update of the Local Agency Guidelines (LAG) was issued. This updated LAG manual was revised to reflect the ISTEA, Federal Highway Administration procedures, and suggestions by the Local Agency Guidelines Committee.

The LAG manual was produced to provide Washington's local agencies with statewide standards and procedures to follow when using federal funds for transportation projects. The manual is also a source book with references given for those seeking additional information and assistance. The guide has been structured in the same order as the development of a project. Through the LAG manual the Regional TransAid Engineers and their staff can assist local agencies and Indian tribes in developing, funding, and implementing transportation projects. The guide provides numerous

checklists which help to ensure that items are not forgotten during a project's development. Local agencies and tribal governments, through use of the LAG manual, a handbook, can follow the necessary steps for implementing their transportation projects.

The reader should refer to the LAG manual for the details in developing projects. An overview of the project development process as outlined in LAG follows.

4. An Overview of Developing Projects Using the Local Agency Guidelines

Once a transportation improvement proposal has been through the planning process and included in the Transportation Improvement Program (TIP) for the regional planning organization (MPO or RTP), the next step is to start the actions necessary to implement the proposal.

As outlined in the Local Agency Guidelines (LAG), requests for funds are made along with appropriate initial paperwork for federal participation. Upon approval of funding and authorization to proceed, design work begins including necessary environmental documentations. Following local, state, and federal laws, contract plans are prepared. About the same time, monies are requested for various activities, e.g., right of way purchases and construction of the facility. Contracts are advertised and awarded. Construction begins with directions and oversight by the responsible agency or tribe. Upon completion of work to the satisfaction of the contracting agency, the final paperwork, including final payments and awards, are completed and the facility is opened to traffic.

The LAG manual includes all the details and the key forms needed to process local federally funded projects. In addition, Regional TransAid Engineers and their staff are available to assist local agencies and tribes with their federal-aided projects.

Contact names and phone numbers are listed in the front of this guidebook for the Regional TransAid Engineers as well as the various tribal planners.

ENDNOTES FOR CHAPTER 9

¹ HB 1487 defines and requires planning for "transportation facilities of statewide significance." In particular, the state Department of Transportation, in consultation with local governments, is authorized to set LOS standards for state highways and ferry routes of statewide significance. Setting LOS standards for all other state-owned transportation facilities continues to be performed by regional transportation planning organizations working jointly with the DOT. It also deems "transportation facilities of statewide significance" to be essential public facilities under GMA.

² SHB 3110 now requires the state Department of Transportation to give consideration to activities related to wetlands, fish passage, fish habitat, and flood management when conducting advanced environmental mitigation.

³ *Source:* Washington State Department of Transportation

⁴ ESHB 2615 created a Freight Mobility Strategic Investment Board to administer grants targeted at improving freight mobility on state highways and railways.

⁵ Ch. 36.70A RCW.

⁶ HB 1487 (1998).

⁷ HB 1487 now requires cities and counties planning under the GMA to include state-owned transportation facilities in the transportation element of their comprehensive plans by December 31, 2000. The transportation element must include estimated impacts to state-owned transportation facilities resulting from land use assumptions to assist the Department of Transportation in monitoring the performance of state facilities, and to assess the impact of land-use decisions on state-owned transportation facilities.

⁸ RCW 47.01.071

⁹ ESB 6628 added the relief of congestion, the preservation of existing investments, the improvement of traveler safety, and the efficient movement of freight and goods to the primary emphasis of DOT's statewide multimodal transportation plan.

